

Metaphysical and Moral Questions About the Initial State of Human Mind/Machine

Richard Taye Oyelakin & Olusola Victor Olanipekun

Obafemi Awolowo University, Department of Philosophy, Ile-Ife, NIGERIA

Received: 3 September 2024 ▪ Revised: 16 November 2024 ▪ Accepted: 21 November 2024

Abstract

The claim that machine table begins from State A has raised the question of the equivalent state in human mind. Putnam's initial position, although already repudiated, is that human mental state is equivalent to machine state. By implication, everything which is true of a state of machine table is also true of human mental state. Turing likens this initial state in human mind to the state of the mind of a child at birth. However, upon the fact that fetus has been implementing some programs before birth might challenge Turing claim. But then, this might raise some metaphysical and ethical questions. For instance, which is the initial State in human mind? What is the implication of the initial State on the anti and pro abortionists' debate? This study, employing the debate between the pro and anti- abortionists, argues that this state might not be so easily defined as it seems. This study connects the issue of discourse with how questionable it is that Turing's view holds the primitive view of time. We are taking side with Putnam concluded that the issues of time, and initial state will only be resolved when language is much developed and become more technicalized. This study adopts philosophical argumentation and critical analysis as methodology.

Keywords: Putnam, mental state, machine, mind, pro-abortionist, anti-abortionist.

1. Introduction

Putnam's adoption of the Turing machine model set a stage for an exploration of the equivalence of the machine state in mental state. Whereas Putnam who initially would follow Turing to argue that the nature of human mental state is equivalent to that of machine state, later found this position very complex and complicated. This is partly on the question of computational and compositional plasticity, and partly again on the issue of the possibility of a token-by-token equivalent relation between machine and mental state. This complication led Putnam to seriously challenge a sense of realism which he initially adopted.

What is of importance to this study is to look at a tiny but yet contentious part of Putnam's issue which bears an allegiance to Turing hypothesis, which requires the need of sufficient clarification. This is the issue of the correlate of the initial state in human mind. On the machine table adopted by Putnam, the initial state is state A. Now, the question we are pressing is; do we have equivalent initial state A in human mind? If there is, what is this initial state in human mind? As easy to determine as this question appears, we observe that it has the propensity to raise some metaphysical, epistemological as well as ethical issues. We intend to show that this

© **Authors.** Terms and conditions of Creative Commons Attribution 4.0 International (CC BY 4.0) apply.

Correspondence: Richard Taye Oyelakin, Obafemi Awolowo University, Department of Philosophy, Ile-Ife, NIGERIA.

initial state in human mind might be complex and not very static as compared to the machine. The paper is divided into four main sections. Section one considers Putnam's machine view of the mind. Section two focuses on the question of the initial state in a child's mind. Section three discusses Anti and Pro abortionists' debate on the moral status of fetus. Meanwhile, section four, considers the implications of the initial State on the anti and pro abortionists' debate. It also discusses the primitive dogma of time and the complexity about the initial state in a child's mind/machine.

2. Putnam's machine view of the mind

Putnam raised many issues with his machine hypothesis of the mind. Another issue raised by his adoption of Turing machine is about the initial state of the machine. For Putnam, the machine state starts in state A:

The machine described by this table is intended to function as follows: the machine is started in state A. On the tape there appears a 'sum' (in unary notion) to be 'worked out', e.g. '11 + 111.' The machine is initially scanning the first '1'. The machine proceeds to 'work out' the sum (essentially by replacing the plus sign by a 1, and then going back and erasing the first 1). Thus, if the 'input' was 1111 + 11111 the machine would 'print out 111111111, and then go into the 'rest state' (state D) (Putnam, 1975: 365).

What is evident in this quote is that the nature of the machine structured here is that the initial state of the machine is state A. Not only that, the machine has a tape on which input is scanned. It also relies on the machine table for its functioning. The machine table specifies what the machine is to do given any particular input. For instance, that the machine described in the quote machine is programmed to replace the sign "+" with a "1" in unary notion which is to be worked out by the machine. Then in working out the sum, the machine is to move back to erase the first "1" in order to present output which is the output. What is important here is that the machine is said to start on state A.

3. Question of the initial state in a child's mind

The confronting question we pose to Turing is; what is the equivalence of this state A in the description and workings of human mental states? Does it describe the first state when a person wakes up from sleep, say in the morning or after a nap, or a state which the mind is when it receives the first input in a day? Neither of these could be the equivalence because neither could be the starting state A of the mind. The state at which the mind receives an input cannot be its starting state. This is because the mind receives so many different inputs at every minute. Besides, it is debatable whether or not human mental state is performing computing work when a man is asleep. Or if it is, then what type? To find this equivalence, let us revisit Turing's initiating article *Computing Machinery and Intelligence*. For Turing, "in the process of trying to imitate an adult human mind we are bound to think a good deal about the process which has brought it to the state that it is in. We may notice three components:

- (1) The initial state of the mind, say at birth,
- (2) The education to which it has been subjected,
- (3) Other experience, not to be described as education, to which it has been subjected.

Instead of trying to produce a program to simulate the adult mind, why not rather try to produce one which simulates the child's? ... Presumably the child's brain is something like a

notebook as one buys it from the stationers. Rather little mechanism, and lots of blank sheets. ... Our hope is that there is so little mechanism in the child brain that something like it can be easily programmed (Turing, 1950: 433).

Here, we may see that Turing claims that the equivalence of the machine state A is “the initial state of the mind, say at birth.”¹ But there is an additional description of that state. The state has “so little mechanism.” There is also another issue to be pointed out from Turing’s hypothesis. Turing seemed to suggest that an adult mind is already a complex functional system whose question about its initial state has to be traced to the mind at birth. Regarding a child’s mind, Turing might not be far from being correct to describe it as “little mechanism”. This is because to claim that a child at birth is devoid of any functional state is going to raise some other questions. Based on some gestational evidences, it may be argued that fetus begins to run some form of functional program from a certain stage of the pregnancy however intricate and little this may be. This is true upon the biological evidence that a fetus begins to respond to stimuli at a certain stage of gestation.

The question which arises here is; how “so little” is Turing’s “so little mechanism” in human brain at birth? Does the fact (if it is a fact) that a child’s brain at birth is like a clean notebook which runs a little mechanism, follow that the ‘mental state’ is also so little? What we think is that timing only described the human functional mechanism at different stages; from its fallible early stage to the mature stage of adult mind. In fact, there is a reason to assume that the way Turing holds human brain “at birth” as equivalent of state A appears questionable. This is because, at a certain level of functional description, a baby at birth appears already as a complex functional system under some certain state and stage description. The child has been implementing some set of programs as a fetus in its environment inside the uterus. The first cry is actually natural and innocent way of responding to a new environment. This is similar to the way an adult will respond to a sudden exposure radically different environment. Therefore, at birth, a child could be a good example of a functional system, already running some level of complex program. Now, the question which persist is; which of the states is the equivalence of machine initial state A in the mental state? Even, given Turing’s ‘little mechanism,’ we still have to determine the first state.

In order to address the question of initial state in a child brain at birth equivalent to state A in the machine table, let us consider some ethical arguments from anti and pro-abortionists on the question of the rights of fetuses versus the rights of women. The aim is to find out if there may be anything to shed some clarification light. Do fetuses have rights? If yes, when exactly/at what point can it be established that a fetus possesses a right? But now, do we mean that the initial state/state A in a child starts when a child possesses right? We admit that this also appear to be a complicated and controversial matter. We shall return to this with a view to seeking a perspective into the question of the initial state in a child’s functional state. Meanwhile, let us consider the anti and pro abortionists’ debate on the moral status of fetus and its relevance to the subject matter.

¹ This assertion may be reminiscence of the Lockian notion of *Tabula Rasa* which is referring to the mind as the clean slate at birth. But care must be taken to make this comparison. This is because, Turing gives an allowance for ‘little mechanism’. This ‘little mechanism’ may represent many things ranging from ‘little functional organization’ to ‘some little ideas’ which may be quickly termed ‘innate ideas’, however it may not necessarily be ‘innate ideas.’ Whatever ideas there are explainable in terms of its functional descriptions. But, coming back to Turing, a ‘little mechanism is a mechanism all the same and it has to be fully described in terms of its own state descriptions. We may then ask again, what is the equivalence to the machine state A in this functional organization ‘little mechanism?’

4. Anti and pro- abortionists debate on the moral status of fetus

One of the longstanding controversial issues that has touched various aspects of life is abortion. It has touched medical, moral and religion aspects to mention a few. Essentially, the debate about ‘abortion’² raises fundamental questions about human existence, when life actually begins and what it is that makes us human (Marquis, 2006; Qaisar, 2009: 26). Does life really begin at conception as some people assumed, or at the point of birth? As earlier mentioned, biological science has proven that life begins with fetus. That is, fetus has life.

Answering the question; ‘when does live begin?’ raised regarding the issue of abortion largely involves the pro-abortionists and the anti-abortionists, each of which attempt to defend its positions. Contrary to a common misunderstanding, the pro-abortionists do not disagree with science on whether or not fetus has life. Their point of dispute is that fetus is not a human being, just as dog has life but dog is not a human being. The argument of the pro-abortionist is that, fetus is not sufficiently a human being. The implication of this view is that every right or respect that should be accorded a human being needs not be extended to a fetus. For instance, Peter Singer argues that, an infant might be accorded the same right to life as other persons some 28 days after birth (Singer, 1994: 217).

The implication from Singer’s view is that fetus does not possess rights. However, the above submission may not go down well with the anti-abortionists who believe that fetuses already have rights from the beginning of the gestation period. Jacques Maritain’s claim that “the human being has the right to be respected, because he possesses rights...these are things which are owed to a human being because of the very fact that he is a human” (Jacques, 1944: 37). is not applicable to fetus. For the pro-abortionists, abortion is not morally impermissible because fetus is not an actual human but mere potential human. It is on this note that pro-abortionist like J.J. Thomson argues that woman has a right to abortion in case of rape, or in a situation when the woman’s life is endangered (1984: 126-129). Since it is believed that fetus is not fully human, aborting fetus due to rape or threat to life of the woman is morally permissible.

However, one challenge that Mary Anne Warren identified with pro abortionists’ position is that it is problematic to produce a satisfactory defense for a woman’s right to obtain an abortion without first showing that a fetus is not a human being (1984: 144). That is, pro - abortionists should be able to clearly establish that fetus has not initiated or been implementing some programs before birth which will qualify it to be a human being. Now, would the anti-abortionists agree with the pro-abortionists on this subject matter? Or, would the anti-abortionists agree that fetus should not be accorded any right that human being should enjoy? The anti-abortionists rely on the premise that the fetus is a human being from the moment of conception (Thomson, 1984: 126). Thus, for the anti-abortionists, abortion is morally impermissible because it is an act of murder. The fetus, they claimed, is a human being not just a life (a frog is a life but not a human being), a creature of full moral status imbued with fundamental rights (Little 2005: 27-28).

Contrary to the view defended by the pro-abortionists, the anti-abortionists argue that a fetus, at any stage of the gestation period, is a human being. As a matter of fact, Norman Ford argues that “Life once conceived must be protected with the utmost care” (2002: 63). Ford’s view implies that life starts from conception. But, is it possible to maintain this position consistently? To strengthen their position, the anti-abortionists also argue further that a fetus is a living being that needs to be protected just like any human being. One problem with the anti-abortionist’s view is that they did not pay attention to the fact that all human beings are living being, but not all living beings are human beings. Anti-abortionists on this note claimed that the fetus possesses all the

² Abortion could be defined as the act which a woman performs in voluntarily terminating, or allowing another person to terminate her unborn her pregnancy (Warren, 1984: 144).

potentialities of a full-grown human being. Aborting the fetus is, by implication, aborting a human being (Thomson, 1971: 47). What this suggests is that a fetus has every capacity of becoming a full-grown man because it carries all the potentialities of a full human being. By implication, and to employ Turing's view, a fetus is a *potential* functional organization because it possesses a 'little mechanism' at birth. However, it may be objected that there are marked differences between a potential functional organization and actual functional organization. Therefore, a fetus is different from full grown human functional being. But the pro-abortionists could reply, as Ford hinted, that "the genetic identity of the adult individual is practically the same as that of an embryo who possesses the potential to develop and grow into an actual human being...Thus, embryo and the resulting adult are the same living being" (*Ibid.*, 2002: 63).

We must be able to clearly separate some issues. The difference between a fetus and a full-grown human being based on the criteria; being human, is quite different from a difference between a fetus and a full-grown man under the criteria; being a functional organization. Now, by Putnam's claim that everything is a functional automaton under relevant description, and the pro-abortionist's claim that a fetus is just a living tissue which may grow to become a human being, we may be compelled to admit that a fetus is a functional organization in its own relevant description. In fact, given this consideration, the pro-abortionists may also see some reason not to deny that a fetus is a functional organization. The only premise that they might deny is that this functional organization is a human being. We have established an agreeable position for the two opposing parties. This is the position that fetus is a functional organization whether or not it is a human being.

That a fetus is functional organization is true in the sense that every activity of the fetus can be logically characterized in scientific/functional explanation. This might be true on the ground that whatever object whose activities can be logically characterized into a functional structure is *ipso facto* a functional organization. Under this consideration, a fetus will be qualified to be referred to as functional organization. If a fetus is a functional organization which is running a certain marked program, then it becomes obvious how difficult it is to address and settle the question of the initial state of fetus' functional organization. What the foregoing has demonstrated is that the question of the initial state A in the machine state automaton is not easily paralleled in the case of human automaton. This is a fundamental demarcation from machine state automaton as a description of the nature of mental states.

The issue is that if we assume the similarity of inputs in both the digital machine and the mental machine, then this raises the question; how does the mental state machine convert its own inputs to the digital codes and symbols which the human functional machine works with? This ended on the point that for a digital machine to be a sufficient model of the mental machine there must be an equivalence of the initial state in the mental state. But we found out that to do that we must first find out the initial state in the fetus. However, the initial state of the mental state is not easily determined in the case of fetus functional organization. This, no doubt, poses a problem but not the one classified as a hard problem in the philosophy of mind.

Considered from another point of view, note that Turing likens this initial state to the state of the mind of a child at birth. What does Turing imply by "state of the mind ... at birth"? Does he mean that a child possesses a mind before birth or at birth? What appears a consistent view here is that Turing assumes that a child possesses a mind before birth. This is because it might be impossible for a child to suddenly develop a mind at birth which wasn't there before. However, we observe that fetus has been implementing some programs before birth. But then, can mind be ascribed to this fetus as a functioning system, i. e. can a fetus have a mental state? If Turing is willing to ascribe a mind the fetus before birth, at what stage? Again, this is a complex but hardly a hard question. We want to clearly assert that it is impossible to accord a functioning system what is not yet clear. The term 'mind' is not yet clear! Looking at it from the view of the identity theorists, the fetus only possesses the mind at a certain stage in the gestation when the

brain is developed. But, following the functionalists, if the mind is ascribed to a functional performance, i. e. the time fetus begins to implement certain functions, then from the period of fertilization, fetus could be accorded mind. It begins to implement functions immediately fertilization takes place! But whether the mind is equivalent to the brain or functional system or some other prescribed variables is yet to be clearly ascertained. From the foregoing, we found out that the debate on the moral rightness or wrongness of abortion only makes the question of the initial state of the machine more complex. The fact is that whether deserving the accordance of right, or even mind or not, fetus has been implementing some computational functions before birth. This may weaken Turing's view if he imagines that the initial state is likened to the state of baby at birth. Now, what is, or, are the implication(s) of the initial state on the anti and pro abortionists' debate? Let us consider this in the next section.

5. The implication(s) of the initial state on the anti and pro abortionists' debate

This section reveals how and why we claim that the initial state might not be so easily defined especially when considering the debate between the anti and pro-abortionists due to certain questions that require clarifications.

The first question is that; can it be really proved beyond any doubt that the initial state of the mind is activated before birth, just as it is evident in Putnam's view that the initial state of the digital machine is state A? If it can be established that the initial state of the mind is activated before birth, certain question will follow. Is it desirable or not to accord the fetus with an activated mind with some human rights before birth? Anti- abortionists are likely to jump at this view and use it to compel their argument. The argument is likely to be that (1) since the fetus possesses a mind, and (2) possession of mind is part of requirements for ascription of rights, then it should be accorded some rights. The implication will be that this fetus ought to be accorded certain rights like any other human being. However, a pro-abortionist might, for whatever reason, assent to the point that this fetus has a mind but might deny the view that it should be accorded rights. It might be argued that (1) though the fetus appears to have a mind, whatever that is, (2) it is not yet a human being. Therefore, it is still not to be accorded right.

The second question is; can it be truly established, beyond any doubt that the initial state of the mind is activated after birth? If it can be established that the initial state of the mind is activated after birth, certain question will follow. Is desirable to deny the fetus (even moments before birth) some rights simply because it is believed that its mind is not activated yet? Pro-abortionists' argument will also hold to this view to argue that since the fetus doesn't possess an activated mind before birth, then it should not be accorded any right.

This issue as here presented is hiding a point though. The point is that the issue has turned to that of an 'activated mind.' The debate between the two camps will turn out not to be whether or not the fetus has a mind but whether or not the mind is activated. But again, there is the term 'mind' as a common denominator here whose existence is begged and whose proof of existence is necessary in order to resolve the matter. At this point, until this is addressed, this debate may not have a way to be resolved. However, as hinted earlier, Turing likens the initial state to the state of the mind of a child at birth (Turing, 1950: 433). This, in a way, suggests that Turing's argument is in line with the pro-abortionist's position. But Turing's view is highly contestable because it is not yet settled when the fetus actually possesses a mind. Therefore, the issue of the initial state might not be so easily defined as it seems.

6. The complexity about the initial state in a child's mind/machine

It is a biological fact that fetus has been implementing some programs before birth. This might challenge Turing idea of likening the initial state in human mind to the state of the mind of a child at birth (1950: 434). But then, which is the initial state in human mind? According to Norman Ford, zygote or fetus is already implementing programs because it starts interacting with the maternal environment in a continuous process (2002: 63). This is where the initial state in human mind is complex. From the understanding that certain process has been activated even before a child is born, can we then, say that initial state starts before birth when the brain started forming at week five, or before, or immediately after a child is born? This appears as a complex issue.

The question of time is another implicit question waiting to be battled with. For instance, considering the complexity of timing, does Turing mean few minutes before birth, or few minutes after birth or the moment when the head is out but body still inside the mother? This initial state of human mind is difficult to ascertain when compare to that of a Machine. One of the main questions here is that of the time at which initial state or mind is to be ascribed to a fetus. But this raises another issue entirely.

7. The primitive dogma of time

The point we intend to push in this section is that temporal realism assumed in the talk about the initial state of human machine raises some further question about the discourse. The first point to be made is that the issue about the initial state of human machine assumes the reality of time, i.e., that there is a particular temporally marked moment when the fetus or what have you assumes the state called the initial state. This is based on an assumed belief that there is time and consequently, there is temporal measurement. In other words, it is assumed that there is the time T_1 when a state S is at its initial state. This is the assumption and it is distributed over the whole idea of the initial state. But this assumption can only make sense if the question of the nature of time has been settled in favor of time. We doubt this! As far in the literature as we are aware, none of the methods to determine the existence of time has clearly point out the reality of time.

The convincing point about the methods is that both A-series and B-series are themselves event or process in time. The question is how can an event which occurs in time be used to define time without begging the question? This is what made McTaggart, a notable scholar on the question of time to conclude on the point that time does not exist (1993: 457). We are not here taking a position on the question of the nature of time. We are only pointing out that something is wrong about the assumption of temporal realism which is forced on the idea of initial state, even of the machine state. The notion of time remains to be sufficiently accounted for. Consequently, the idea of the initial state of human or computer machine could not yet be easily resolved. To resolve it, the problem of time has to be resolved first.

The second point is that we will like to take some temporary solace in Putnam's view that perhaps, much of these problems will be much clear when our language becomes more technicalized. This is because the issue of time, existence and of course the initial state of the machine all appear to bear some direct relationship with tense and the use of language. We want to vehemently support Putnam³ that language at this stage, as it is being used, still falls short of its expectation, i.e. it appears very primitive and yet to attain the technical level at which concepts,

³ For information on this, see Putnam, 1971: 54, and Quine, 1964: 370.

tense and or sentence could definitely capture ideas of existence, being and process of events and how these could be affirmed.

What we therefore propose is that all that are concerned should continue to work on language as a system with a view to making it more advanced. It is expected that at that level, language will become empowered to and be more precise to account, define or describe things and events. The point here is that for problem of the question of the initial state of the machine (digital or human) to be adequately confronted, we figured that both metaphysical and its implied epistemological correlate of the nature of time has to be resolved first.

8. Conclusion

In this paper, we have been able to examine the claim that machine table describes the nature of a functioning machine. This machine table begins from state A which has raised the question of the equivalent state in human mind. For Putnam (though repudiated much later), it follows that by implication, everything which is true of a state of machine table is also true of human mental state. Turing likens this initial state in human mind to the state of the mind of a child at birth. However, this paper observed that the fact that fetus has been implementing some programs before birth might challenge Turing claim. But then, this raised some ethical and metaphysical questions. We found out that the debate on the moral rightness or wrongness of abortion only makes the question of the initial state of the machine more complex. The fact is that whether right deserving or not, fetus has been implementing some computational functions before birth. This weakens Turing's view that the initial state is likened to the state of baby at birth.

Besides, this issue has also clearly shown that the point between the pro- and anti-abortion is not whether or not the fetus is a functioning system, but that of whether or not a functioning fetus should be accorded some rights or not. It is also noted that Turing's view accorded with the pro-abortionist since Turing seem not to regard a fetus as possessing the mind. This study therefore, argued that the initial state might not be as easily defined as it seems.

Consequently, this study raised the issue of how questionable it is that Turing's view holds the primitive view of time. We, taking side with Putnam and concluded that the issues of time, and initial state will only be resolved when language is much developed and become more technicalised. We adopted the methodology of philosophical argumentation and critical analysis in the study methodology.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public commercial, or not-for-profit sectors.

The authors declare no competing interests.

References

- Little, M. O. (2005). The moral permissibility of abortion. In A. Cohen & C. Wellman (Eds.), *Applied ethics*. Oxford: Blackwell Publishing.
- Maritain, J. (1944). *The rights of man*. London: Oxford University Press.

- Marquis, D. (2006). Abortion and the beginning and end of human life. *Journal of Law, Medicine & Ethics* 34(1), 16-25.
- McTaggart, J. M. E. (1993). The unreality of time. In R. Le Poidevin & M. McBeath (Eds.), *The philosophy of time*. Oxford University Press.
- Norman, M. Ford. 2002. *The prenatal person: Ethics from conception to birth*. Malden: Blackwell Publishing.
- Putnam, H. (1971). It ain't necessarily so. In J. F. Rosenberg & C. Travis (Eds.), *Readings in the philosophy of language*. New Jersey: Prentice Hall Inc.
- Qaisar, A. (2009). Pro life and pro-choice debate: A journey from restriction to regulation-destination Pakistan. *Pakistan Law Journal*, 1(1), 25-37.
- Quine W. V. (1964). Time. In J. J. C. Smart (Ed.), *Problems of space and time*. New York: Macmillan Publishing Co., INC.
- Singer, P. (1994). *Rethinking life and death: The collapse of our traditional ethics*. Melbourne: The Text Publishing Company.
- Thomas, J. J. (1984). A defense of abortion. In J. Sterba (Ed.), *Morality in practice* (pp. 126-129). California: Wadsworth Publishing Company.
- Thomson, J. J. (1971). A defense of abortion. *Philosophy & Public Affairs*, 1(1), 47-66.
- Turing, A. M. (1950). Computing machinery and intelligence. *Mind*, 59(1), 433-460.
- Warren, M. A. (1984). On the moral and legal status of abortion. in J. Sterba (Ed.), *Morality in practice*. California: Wadsworth Publishing Company.

